

Title (en)  
PROPULSION DEVICE USING FLUID FLOW

Title (de)  
ANTRIEBSVORRICHTUNG MIT FLÜSSIGKEITSFLUSS

Title (fr)  
DISPOSITIF DE PROPULSION UTILISANT UN FLUX DE FLUIDE

Publication  
**EP 2479100 A4 20170607 (EN)**

Application  
**EP 10815596 A 20100907**

Priority  
• KR 20100087061 A 20100906  
• KR 20090084509 A 20090908  
• KR 2010006063 W 20100907

Abstract (en)  
[origin: US2012156038A1] A propulsion device using fluid flow quickly discharges the vortex flow generated on an upper surface of the propulsion device to the outside to improve the propulsion and thrust of transportation means provided with the propulsion device. For this purpose, the propulsion device includes a fluid storage unit in which a downwardly curved fluid storage surface is formed between a first inlet line and a first outlet line such that a fluid storage space is formed on the fluid storage surface. A fluid flow unit in which a downwardly curved fluid flow surface is formed between a second inlet line and a second outlet line which are outwardly and backwardly inclined such that a fluid flow space is formed on the fluid flow surface. The fluid flow surface adjacent to the second outlet line becomes gradually flattened as it extends outwardly.

IPC 8 full level  
**B63B 1/32** (2006.01); **B62D 37/02** (2006.01); **B63B 1/24** (2006.01); **B63H 1/26** (2006.01); **B63H 9/06** (2006.01); **B64C 3/10** (2006.01); **B64C 11/18** (2006.01); **B64C 11/24** (2006.01); **F01D 5/14** (2006.01)

CPC (source: EP US)  
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Citation (search report)  
• [X] US 4789306 A 19881206 - VORUS WILLIAM S [US], et al  
• [X] US 4293110 A 19811006 - MIDDLETON WILBUR D, et al  
• [X] US 4146352 A 19790327 - YASUGAHIRA NORIO, et al  
• [X] US 2008149205 A1 20080626 - GUPTA ANURAG [US], et al  
• [X] US 4455045 A 19840619 - WHEELER GARY O [US]

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)  
**US 2012156038 A1 20120621**; **US 9033665 B2 20150519**; CN 102481968 A 20120530; CN 102481968 B 20140618; EP 2479100 A2 20120725; EP 2479100 A4 20170607; KR 101005661 B1 201110105; WO 2011031051 A2 20110317; WO 2011031051 A3 20110714

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**US 201013393175 A 20100907**; CN 201080040037 A 20100907; EP 10815596 A 20100907; KR 2010006063 W 20100907; KR 20100087061 A 20100906